2. Remarks

Reconsideration of the application is respectfully requested in view of the amendments made herein.

a. The § 112 Rejections

Claims 4, 6 and 11 were rejected under § 112 based on the inclusion of the limitation "Young's Modulus of not more than about 9512 MPa." Claims 4 and 11 are amended to recite only the single data point. Claim 6 is amended to eliminate this limitation altogether.

b. The § 102 and § 103 Rejections

Each of the objections raised by the Examiner under sections 102 and 103 is believed to be addressed by the present amendments.

The transitional phrase in each claim is changed from "comprising" to "consisting of." None of the references teach the specific combination of elements recited in the claims. Even if the '286 Japanese reference were construed to disclose inclusion of P at 0.2% or less, it does not teach or suggest the inclusion of P at 0.01%, as specifically claimed herein in combination with the "consisting of" transitional phrase.

As argued by Applicant on several prior occasions, the Japanese '286 solder is compositionally very different from the claimed solder, and is intended for use in fundamentally different process: surface mount technology (SMT) soldering. Oxidation and skinning are not of concern with SMT soldering because the alloy is not held in a molten state for any significant period of time. As such, the alloy requirements for an SMT solder are very different from a wave-soldering alloy. The composition called out in the Japanese '286 reference is what would be expected in an SMT solder: tin/silver base containing only 0.2 – 1% silver, with small amounts of antimony and/or copper or nickel, cobalt, iron, manganese, chromium and/or molybdenum as strengthening agents, bismuth indium and/or zinc as melting point-lowering elements, as well as phosphorous, gallium and/or germanium as antioxidants. One having ordinary skill in the art would not look to such a solder for an SMT process to solve a problem in a wave-soldering process, particularly as here where the two solders use different alloys. Thus, solder claimed in claims 1 and 4,

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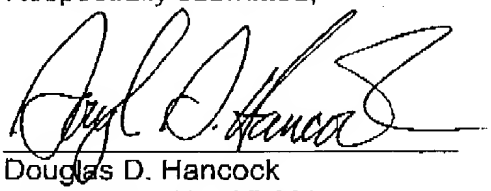
the method of preparing a solder as claimed in claims 6 and 9, and the method of soldering as in claim 11, are not obvious in view of the Japanese '286 reference.

As to the claim limitation relating to the intended use for the solder described and claimed in this application, the Examiner correctly points out a general legal principal: that reciting the end use in a product claim directed to a known compound does not necessarily make the claimed compound novel. However, in this case the compounds set forth in the claims *are not* known. Claim 1 is a product claim that sets forth a novel and unobvious compound that is specifically for use in a wave soldering process. Claim 6 is a method for preparing a novel and unobvious solder composition, and claim 11 is a method for using the novel solder in a wave-soldering process. For the reasons noted above, the intended use of the claimed compound does under these facts contribute to patentability of the claim, and more specifically helps to distinguish the claimed subject matter from the references cited by the Examiner.

Applicant filed an Information Disclosure Statement on May 19, 2004, but the June 15, 2004 Office action does not indicate that the references disclosed in the May 19 IDS were considered by the Examiner and made of record. Such action is respectfully requested, in addition to allowance of the application.

Respectfully submitted,



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